

Product Datasheet

HSP70/HSPA1A Antibody - BSA Free NBP1-77455

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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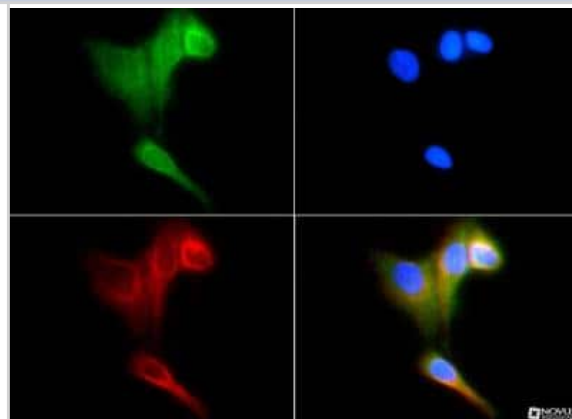


NBP1-77455**HSP70/HSPA1A Antibody - BSA Free**

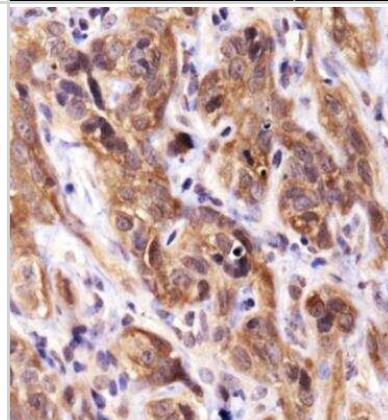
Product Information	
Unit Size	0.1 ml
Concentration	1.18 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS and 30% Glycerol
Product Description	
Description	Novus Biologicals Rabbit HSP70/HSPA1A Antibody - BSA Free (NBP1-77455) is a polyclonal antibody validated for use in IHC, Flow, ICC/IF and Simple Western. Anti-HSP70/HSPA1A Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	3303
Gene Symbol	HSPA1A
Species	Human, Mouse
Immunogen	A synthetic peptide made to an internal portion of the human Hsp70 protein (between residues 550-600) [Uniprot: P08107]
Product Application Details	
Applications	Simple Western, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Simple Western 1:50, Flow Cytometry 1 : 200, Immunohistochemistry 1:400, Immunocytochemistry/ Immunofluorescence 1:25, Immunohistochemistry-Paraffin 1:400, Immunohistochemistry-Frozen reported in scientific literature (PMID 26755821)
Application Notes	In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 1.0 mg/mL, separated by Size, antibody dilution of 1:50, apparent MW was 67 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

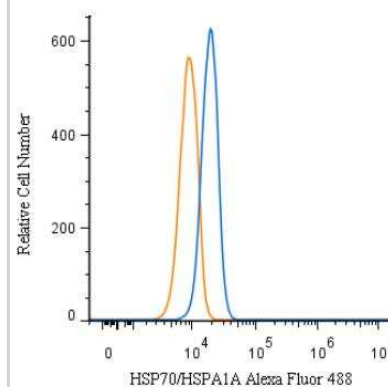
Immunocytochemistry/Immunofluorescence: HSP70/HSPA1A Antibody [NBP1-77455] - HSP70 antibody was tested at 1:25 in HeLa cells with FITC (green). Nuclei were counterstained with DAPI (blue).



Immunohistochemistry: HSP70/HSPA1A Antibody [NBP1-77455] - Analysis of Hsp70 in human xenograft kidney cancer using DAB with hematoxylin counterstain.

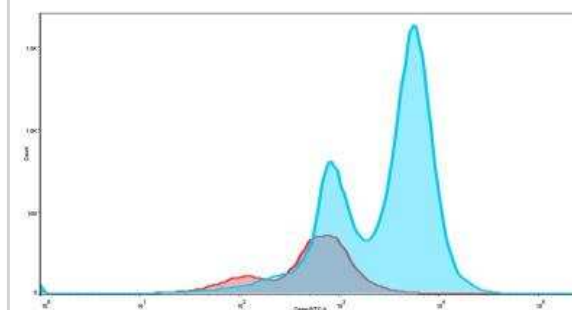


Flow Cytometry: HSP70/HSPA1A Antibody [NBP1-77455] - An intracellular stain was performed on Jurkat cells with HSP70/HSPA1A Antibody NBP1-77455AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.

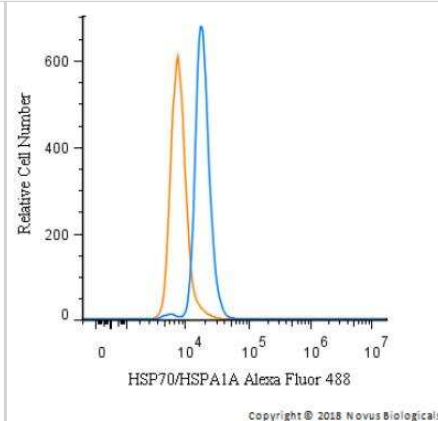


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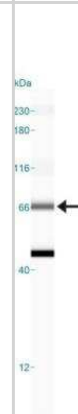
Flow Cytometry: HSP70/HSPA1A Antibody [NBP1-77455] - Single cell suspension generated from B16-F10 tumor excised from C57BL/6 Mouse stained with Hsp70 & FITC secondary (blue) or unstained (red). [Image provided by a varified research professional; see Product Reviews for details on protocol employed].



Flow Cytometry: HSP70/HSPA1A Antibody [NBP1-77455] - An intracellular stain was performed on A549 cells with HSP70/HSPA1A Antibody NBP1-77455AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 $\mu\text{g}/\text{mL}$ for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



Simple Western: HSP70/HSPA1A Antibody [NBP1-77455] - Lane view shows a specific band for Hsp70 in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Publications

Kines RC, Thompson CD, Spring S et al. Virus-Like Particle-Drug Conjugates Induce Protective, Long-lasting Adaptive Antitumor Immunity in the Absence of Specifically Targeted Tumor Antigens *Cancer Immunology Research* 2021-06-01 [PMID: 33853825] (Flow Cytometry, Immunohistochemistry-Frozen, Mouse)

Montes de Oca R, Alavi AS, Vitali N et al. Belantamab Mafodotin (GSK2857916) Drives Immunogenic Cell Death and Immune-mediated Antitumor Responses In Vivo *Molecular Cancer Therapeutics* 2021-10-01 [PMID: 34253590] (Flow Cytometry)

Skalina KA, Singh S, Chavez CG et al. Low Intensity Focused Ultrasound (LOFU)-mediated Acoustic Immune Priming and Ablative Radiation Therapy for in situ Tumor Vaccines *Sci Rep.* 2019-10-29 [PMID: 31664044] (FLOW, Mouse)

Details:
Citation used the FITC format of this antibody.

Apavaloaei A, Brochu S, Dong M et al. PSMB11 Orchestrates the Development of CD4 and CD8 Thymocytes via Regulation of Gene Expression in Cortical Thymic Epithelial Cells *J. Immunol.* 2018-12-19 [PMID: 30567730] (ICC/IF, Mouse)

Bandyopadhyay S, Quinn TJ, Scanduzzi L et al. Low-Intensity Focused Ultrasound Induces Reversal of Tumor-Induced T Cell Tolerance and Prevents Immune Escape. *J. Immunol.* 2016-01-11 [PMID: 26755821] (FLOW, IHC-Fr, Mouse)

Details:
HSP70 antibody was used for immunofluorescence staining of cryosections from B16-F1 tumor tissues isolated from untreated mice or from mice treated with Low-Intensity Focused Ultrasound/LOFU (FIGURE 4D). The antibody was also used for FLOW on CD452TRP1+ B16 cells from tumors of LOFU-treated and untreated mice (FIGURE 4E).

Procedures

Immunohistochemistry-Paraffin protocol for Hsp70 Antibody (NBP1-77455)

HSP70/HSPA1A Antibody:

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

Immunocytochemistry/Immunofluorescence Protocol for Hsp70 Antibody (NBP1-77455)

HSP70/HSPA1A Antibody:

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.



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Products Related to NBP1-77455

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-77455AF488	HSP70/HSPA1A Antibody [Alexa Fluor® 488]

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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